

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for routing information between a first host on a first network and a plurality of hosts on a second network, the method comprising:

establishing a routing path between the first host on the first network and one of the plurality of hosts on the second network, the plurality of hosts on the second network sharing a globally-routable network address;

establishing a routing table comprising a plurality of physical network addresses for the plurality of hosts on the second network, each of the plurality of physical network addresses associated with a respective unique destination identifier comprising a multiprotocol label switching (MPLS) label;

receiving a message from the first host, the message comprising (i) the shared globally-routable network address, and (ii) a destination identifier associated with one of the plurality of physical network addresses;

determining a physical network address in the routing table using the destination identifier received in the message;

mapping the physical network address to the message; and

routing the message to one of the plurality of hosts on the second network using the physical network address.

2. (Cancelled)

3. (Original) The method of claim 1, wherein the routing path comprises a multiprotocol label switched path.

4. (Original) The method of claim 3, wherein the label switched path is established using a Resource Reservation Protocol.

5. (Cancelled)

6. (Original) The method of claim 1, wherein the physical network address comprises a medium access control address.

7. (Original) The method of claim 1, wherein the destination identifier is created during the step of establishing the routing path from the first host on the first network to the one of the plurality of hosts on the second network.

8. (Currently amended) A system for routing messages, comprising in combination:
a local routing table comprising a plurality of physical network addresses and a respective unique destination identifier associated with each of the plurality of physical network addresses, wherein each unique destination identifier comprises a multiprotocol label switching (MPLS) label;

a host on a first network;

a plurality of local hosts on a second network, the plurality of local hosts having the plurality of physical network addresses and sharing a globally-routable network address;

a local processing module for (i) determining a physical network address upon a receipt of a message comprising the shared globally-routable network address and a destination identifier from the host on the first network, and (ii) transmitting the message to one of the plurality of hosts on the second network using the physical network address,

wherein the local processing module determines the physical network address based on the destination identifier using the local routing table.

9. (Original) The system of claim 8, wherein the plurality of physical network addresses comprises a plurality of medium access control network addresses, and the globally-routable network address comprises an Internet Protocol address.

10. (Cancelled)

11. (Currently amended) A method for transmitting data, the method comprising:
establishing a routing path from a first host on a first network to a second host on a second network, the second host comprising a unique data link layer address and sharing a globally-routable network layer address with a plurality of hosts on the second network;

allocating a destination identifier for the data link layer address associated with the second host, wherein the destination identifier comprises a multiprotocol label switching (MPLS) label;

storing the destination identifier with the data link layer address associated with the second host in a routing table, the routing table comprising a plurality of data link layer

addresses associated with the plurality of hosts on the second network, wherein each of the plurality of data link layer addresses is associated with a unique destination identifier;

receiving a message from the first host on the first network, the message comprising the shared globally-routable network address and the destination identifier;

determining the data link layer address based on the received destination identifier using the routing table;

mapping the data link layer address to the message; and

routing the message to the second host using the data link layer address determined based on the destination identifier received in the message.

12. (Original) A computer readable medium having stored therein instructions for causing a processor to execute the method of claim 11.

13. (Original) The method of claim 11, wherein the routing path comprises a label switching path.

14. (Cancelled)

15. (Currently amended) The method of claim 11, wherein the data link layer addresses associated with the second host comprises a medium access control addresses, and the globally-routable network layer address comprises an Internet Protocol address.

16. (Currently amended) The method of claim 11, wherein the message comprises a Voice over Internet Protocol packet.

17. (Currently amended) A system for routing messages, comprising in combination:
a centralized routing module for generating a routing table for a switch module associated with a plurality of network entities sharing a globally-routable network address, the routing table comprising (i) a plurality of physical network addresses associated with the plurality of network entities, and (ii) a respective unique destination identifier associated with each physical network address, wherein each unique destination identifier comprises a multiprotocol label switching (MPLS) label; and

the switch module for receiving a data packet addressed to the shared globally-routable network address, the data packet comprising a destination identifier associated with one of the physical network addresses, the switch module determining a physical network address by mapping the destination identifier to one of the plurality of physical network addresses in the routing table and routing the data packet to a network entity associated with the determined physical network address.

18. (Previously presented) The system of claim 17, wherein each of the unique destination identifiers comprises a data link layer identifier.

19. (Cancelled)

20. (Previously Presented) The system of claim 17, wherein the centralized routing module aggregates at least one data flow associated with each of the plurality of network entities to a destination identifier.

21. (Previously presented) The system of claim 17, wherein the centralized routing module allocates a destination identifier for each network host upon a receipt of a Resource Reservation Protocol message for each network host.

22. (Previously presented) The system of claim 17, wherein upon the allocation of the destination identifier for each network host, a routing path is created for each host.

23. (Cancelled)

24. (New) The method of claim 4, further comprising:
delivering Quality of Service (QoS) requests to one or more nodes between the first host and the one of the plurality of hosts on the second network; and
establishing and then maintaining states of the one or more nodes so as to provide the requested QoS;
wherein the delivering, establishing, and maintaining functions are carried out using the Resource Reservation Protocol.

25. (New) The system of claim 8, further comprising an MPLS label switched path including at least a first MPLS switch and a second MPLS switch,

wherein the first MPLS switch is between the host on the first network and the second MPLS switch, and

wherein the first MPLS switch provides information regarding the MPLS label of one of the unique destination identifiers to the second MPLS switch for use in creating the MPLS label switched path.

26. (New) The system of claim 8, wherein one or more of the plurality of physical network addresses is associated with a plurality of multiprotocol label switching labels.